

Massachusetts Health Care Cost Trends 1991 - 2004

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February 6, 2008**

Focus of this Analysis

- The focus of this analysis is the trend in Massachusetts health care expenditures, with national trends as a benchmark for comparison.
- The relative efficiency of the health care system or particular providers in Massachusetts and other states is not addressed.
- A more comprehensive analysis is needed to assess the efficiency of the Massachusetts health care system to examine the complex interactions among cost, illness severity and quality of outcomes.

Data Sources

Health Care Spending

- Center for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, State Health Expenditure Accounts (SHEA), “Massachusetts Personal Health Care Expenditures (PHCE), All Payers, State of Residence, 1991-2004”, 2007.

Health Insurance Premiums

- Agency for Healthcare Research and Quality (AHRQ), *Medical Expenditure Panel Survey-Insurance Component (MEPS-IC)*, health insurance premium per enrolled employee at private-sector establishments that offer health insurance, 1996-2005.

Aggregate Spending: Personal Health Care Expenditures Data Source Components

- Personal health care expenditures (PHCE) are defined as the total amount spent to treat individuals with specific medical conditions. This excludes spending on program administration, government public health activity, investment and noncommercial medical research.
- Center for Medicare and Medicaid Services (CMS) residence-based personal health expenditure data has been adjusted for :
The health spending consumed by non Massachusetts residents;
Includes publicly financed care through Medicare and Medicaid.
- Expenditures for graduate medical education (GME) are included in the expenditure measure. Medicare GME payment per capita was \$62 in 2004, 2.6% of Massachusetts hospital expenditures per capita or 0.9% of total health care expenditures per capita.

- Research and development expenditures by drug and medical supply and equipment manufacturers are part of the product value which is included in the PHCE.
- CMS uses American Hospital Association (AHA) survey data for its state hospital spending health estimates; therefore federal research grants to university-affiliated hospitals are counted as PHCE.
- Higher labor costs in Massachusetts are part of the health care costs shouldered by Massachusetts residents and are reflected in the analysis.

Health Spending in MA More Than Doubled Between 1991 and 2004

Massachusetts Personal Health Expenditures, 1991-2004

- Between 1991 and 2000, the average growth rate was 5.6% or \$1.4 billion annually.
- Between 2000 and 2004, the average growth rate was 7.7% or \$2.8 billion annually.
 - Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
 - Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Per Capita Spending Doubled from 1991 to 2004 in MA, Slightly Higher Than US Trend

Health Expenditures Per capita in MA and US, 1991 and 2004

- Between 1991 and 2004, health care expenditures in MA increased 106%, from \$3,249 to \$6,683.
- Between 1991 and 2004, health care expenditures in the US increased 100%, from \$2,654 to \$5,283.
- Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Per Capita Spending Growth Accelerated in Most Recent Period – MA and US

Massachusetts Health Expenditures Per Capita, 1991-2004

- Between 1991 and 2000 the average growth rate in MA was 5.0% and in the US was 4.8%.
- Between 2000 and 2004 the average growth rate in MA was 7.4% and in the US was 6.9%.
- Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

•Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

MA Per Capita Health Expenditures Trends Basically Track with US, Though Gap May Be Widening

Index of Health Expenditures Per Capita, MA and US, 1991-2005

•Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

•Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Health Care Expenditure Trend Relative to Other Economic Indicators

Index of Health Expenditures Per Capita and Others in MA, 1991-2006

•After 2000, health care expenditures began to accelerate more sharply, outpacing growth in other economic indicators.

•Sources: Per capita health expenditures: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007. Per capita GDP and wage and salary: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce. CPI-Urban for Boston area: Bureau of Labor Statistics, U.S. Department of Labor.

MA and US Per Capita Spending: Higher Costs in MA; Similar Share of Economy

Health Expenditures in MA and US, 2000 and 2004

• Between 2000 and 2004, health expenditures per capita increased in MA from \$5,021 to \$6,683.

• Between 2000 and 2004, health expenditures per capita increased in the US from \$4,039 to \$5,283.

• Between 2000 and 2004, health expenditures as a share of GSP/GDP increased in MA from 11.5% to 13.5%.

• Between 2000 and 2004, health expenditures as a share of GSP/GDP increased in the US from 11.7% to 13.3%.

•Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.

•Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Hospital-Based Expenditures Account for Half of the Difference between MA and US Per Capita Spending

Health Expenditures Per Capita by Services: MA and US, 2004

- MA Per Capita Spending: \$6,683
- US Per Capita Spending: \$5,282
- Difference: \$1,400
- Note: Health expenditures are based on residence location. Prescription drugs include only outpatient drug expenses
- Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007.

Higher Growth in Research Spending After 2000

Federal Research Funding to Massachusetts, 1992-2004

- NIH funding per capita in US \$32 in 1992 and \$77 in 2004
- Source: NIH funding: National Institutes of Health: "NIH Support to Institutions by State." Health expenditures: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007. Population: Census of Bureau.

MA Spending Distribution Similar to US

Distribution of Health Expenditures: MA and US, 2004

- Note: Health expenditures are based on residence location.
- Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007.

Hospital Care Accounts for a Larger Share of the Cost Increase in MA than in US After 2000

Share of Amount of Increase in Total Health Expenditures by Providers in MA and US, 1991-2000 and 2000-2004

- Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Health Insurance Premiums Add Perspective to Spending Trends

- Premiums reflect largest single health care cost outlay for most consumers.
- Health insurance premium data available from 1996-2005:
 - Agency for Healthcare Research and Quality (AHRQ), *Medical Expenditure Panel Survey-Insurance Component (MEPS-IC)*, health insurance premiums per enrolled employee at private-sector establishments that offer health insurance.
- Other sources of premium data:

- Massachusetts Division of Health Care Finance and Policy, *Massachusetts Employer Health Insurance Survey 2007*. 2005 survey results mirror MEPS-IC.
- 2006-2007 US: Kaiser/HRET, *Survey of Employer-Sponsored Health Benefits 2007*. 2006 data is estimated based on the 6.1% growth rate in the U.S. in 2007.

Between 2000-2004, Premiums Grew at a Faster Rate Than Per Capita Health Expenditures

MA Health Expenditures and Insurance Premiums in MA, 2000 & 2004

- Between 2000 and 2004, health expenditures per capita increased 33% from \$5,021 to \$6,683.
- Between 2000 and 2004, annual health insurance premium per enrolled employee increased on an individual basis 52% from \$2,179 to \$4,141 and on a family basis 44% from \$7,431 to \$10,559.
- Sources: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007 (by Residence Location) Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-Insurance Component

Annual Premium Increase History More Volatile, But Has Outpaced Growth in Per Capita Spending

Annual Rate of Increase in Health and Hospital Expenditures Per Capita and Individual Premiums in MA, 1991-2005

- Between 1996 and 2004, individual premiums increased 78%
- Health expenditures per capita increased 59%
- Sources: Per capita health expenditures: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007. Individual premiums: 1997-2005: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component.

Insurance Premiums Begin to Rise More Rapidly After 2000

Individual Insurance Premiums in MA, 1996-2007

- Between 1996 and 2000 the average growth rate in MA was 3.9% and in the US was 7.4%
- Between 2000 and 2007 the average growth rate in MA was 8.9% and in the US was 7.7%
- Sources: 1) 1996-2005: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2) 2007 MA: DHCFFP Massachusetts Employer Survey 2007. 3) 2006-2007 US: Kaiser/HRET, Survey of Employer-Sponsored Health Benefits 2007.

MA Premium Increases Mirror National Trend

Health Insurance Premiums in MA and US, 2000 - 2007

- Between 2000 and 2005, individual premiums in MA increased 56% from \$2,719 to \$4,235; and between 2005 and 2007, they increased 12% from \$4,235 to \$4,995.
- Between 2000 and 2005, individual premiums in the US increased 50% from \$2,655 to \$3,991; and between 2005 and 2007, they increased 12% from \$3,991 to \$4,476.
- Between 2000 and 2005, family premiums in MA increased 56% from \$7,431 to \$11,435; and between 2005 and 2007, they increased 13% from \$11,435 to \$12,960.
- Between 2000 and 2005, family premiums in the US increased 58% from \$6,772 to \$10,728; and between 2005 and 2007, they increased 13% from \$10,728 to \$12,108.
- Note: The premiums from Massachusetts Employer Health Insurance Survey in 2005 are very close to the MEPS result. \$4,380 vs. \$4,235 for individual and \$11,400 vs. \$11,435 for family.
- Sources: 1) 2000, 2005: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2) 2007 MA: DHCFFP Massachusetts Employer Survey 2007. 3) 2007 US: Kaiser/HRET, Survey of employer-Sponsored Health Benefits 2007.

Nationally, Health Insurance Premiums Have Consistently Grown Faster Than Other Indicators

Increases in Health Insurance Premiums Compared to Other Indicators, 1988-2007

•Source: Kaiser Family Foundation.

Premiums Outpace Growth in Inflation and Wages

Annual Rate of Increase in Individual Premiums, CPI and Wages in MA, 1991-2005

•Sources: Individual premiums: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. Wage and salary: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce. CPI-Urban for Boston area: Bureau of Labor Statistics, U.S. Department of Labor.

Conclusions

- Though we start from a higher base, Massachusetts health care spending and health insurance premiums are growing at a similar rate as nationally.
- After 2000, health care expenditures began a sharp acceleration outpacing growth in other economic indicators.
- However, there may be some early indications that Massachusetts expenditures could be beginning to increase at a slightly faster pace.

Appendix

Key Metrics

Health Care Expenditures and Economy in MA and US, 2004

- MA US MA - US
- Per capita health expenditures: MA- \$6,683, US- \$5,283, MA/US- 26.5%
- Per capita hospital expenditures: MA - \$2,620, US- \$1,931, MA/US- 35.7%

- Individual health insurance premiums: MA- \$4,141, US- \$3,705, MA/US- 11.8%
- Family health insurance premiums: MA- \$10,559, US- \$10,006, MA/US- 5.5%
- Per capita GSP: MA- \$48,086, US- \$39,797, MA/US- 20.8%
- Wage & salary: MA- \$47,799, US- \$38,807, MA/US- 23.2%
- CPI Urban: MA- 209.5, US- 188.9, MA/US- 10.9%.

Changes in the MA Health Landscape

- 1991:** Massachusetts hospitals, regulated since 1981, are deregulated.
- 1992:** Massachusetts receives approval from the federal government to start a managed care system for 400,000 Medicaid recipients.
- 1994:** Partners HealthCare System Inc. is established.
- 1995:** HMO profits drop dramatically.
- 1997:** Federal Balanced Budget Act passes cutting Medicare reimbursement to hospitals, nursing homes and other providers.
- 1997:** MassHealth expansion program is implemented.
- 1998:** Massachusetts HMOs report razor thin profits for 1997.
- 1999:** Massachusetts Hospital Association (MHA) survey shows that Massachusetts hospital profit margins are the worst they have been in ten years.
- 2000:** Harvard Pilgrim Health Care (HPHC) placed in receivership.
- 2003:** Medicaid budget shortfalls force cuts in MassHealth eligibility and increases reliance on Uncompensated Care.
- 2005:** Federal approval of Medicaid waiver setting the stage for health care reform.
- 2006:** Passage of Chapter 58, implementation of MassHealth expansions and Commonwealth Care programs.
- 2007:** Launch of Commonwealth Choice and Health Safety Net reforms begin.

Health Care Expenditures Per Capita: Provider vs. Residence

Comparison of 2006 Analysis in Brief and 2008 Update

- 2006 AIB* examined trends based on the location of providers. Between 2000 and 2004, the MA rate of increase was 38% compared to 32% nationally.
- This *2008 Update* examines data aligned by consumer residence. Between 2000 and 2004, MA spending increased by 33% compared to 31% nationally.
- Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group.

In-State Spending by Out-of-State Residents Remains Constant over Time

Percent of MA Total Health Expenditures Consumed by Non-MA Residents 1991-2004

- The rate of non-state residents receiving care at Massachusetts- based facilities has varied only slightly between 1991 and 2004. Changes in provider-based data appear to have little relationship to residents seeking care in Massachusetts.

- Note: The calculation is derived by the formula: $1 - (\text{residence-based health expenditures} / \text{provider-based health expenditures})$.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Compared to GSP, Per Capita Spending Trends Start to Mitigate after 2001 Peak

Annual Growth Rate of MA Health Expenditures and GSP Per Capita, 1992-2006

- Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007. Regional Economic Information System, Bureau of Economic Analysis.

Per Capita Health Spending Growth Peaks in 2001 Following Earnings Peak in 2000

Annual Growth Rate of MA Health Expenditures and Wages and Salary, 1992-2006

- Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007. Wage and salary: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce.

Per Capita Health Spending Growth Consistently Outpaces Local Inflation

Annual Growth Rate of MA Health Expenditures and CPI, 1992-2006

- Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
- Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007. CPI-Urban for Boston area: Bureau of Labor Statistics, U.S. Department of Labor.

MA Consumer Share of Health Expenditures Rises Nearly to National Average

Out-of-Pocket Payment for Total Health Services in MA and US, 2003 - 2005

- Compared to the US, before 2005, cost sharing in Massachusetts was lower than for health care consumers nationwide.
- Out-of-pocket payment is defined as the amount of money which an enrollee or family is required to pay directly to a provider for a medical service.

•Source: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS), Household Component, State-Level medical Expenditures, Table 1.